

REMARKS

Claims 1-4, 6-7, 12, 14, 21, 24-25, 28-30, 32-33 and 35 have been amended. New claim 36 has been added. No new matter has been added. Support for new claim 38 may be found throughout the specification. Claims 22-23 and 34 have been cancelled without prejudice. Applicants reserve the right to prosecute the subject matter of the cancelled claims at a later date. Claims 1-21, 24-33 and 35-38 are pending.

CLAIM REJECTIONS

Rejection of claims under 35 U.S.C. § 112, 2nd paragraph

The Examiner has rejected claims 7, 12 and 21 under 35 U.S.C. § 112, second paragraph, as being indefinite. See Office Action at p. 2. Specifically, the Examiner states that “[i]n claim 7, it is not clear whether the pulp portion is conveyed by all of these methods or whether same is conveyed by only one.” *Id.* Additionally, the phrase “the drying gasses” in claim 7 lacks antecedent basis. *Id.* Applicants have amended claim 7 and deleted all methods of conveying the pulp portion except for “hot gasses.” The phrase “the drying gasses” has also been amended to “the hot gasses” to provide correct antecedent basis. Applicants respectfully request the withdrawal of this rejection.

It is unclear why the Examiner consider claim 12 indefinite, since no prima facie argument for indefiniteness has been supplied in the Office Action. However, to further clarify claim 12, Applicants have amended claim 12 to depend from claim 5. Applicants respectfully request reconsideration and the withdrawal of the rejection.

With respect to claim 21, Applicants have amended claim 21 to correctly depend from claim 20. Applicants respectfully request the withdrawal of this rejection.

Rejection of claims under 35 U.S.C. § 102

The Examiner has rejected claims 1 and 19 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,183,103 to Noznick et al. (“Noznick”). See Office Action at p. 3. Claim 19 depends from independent claim 1.

Not in acquiescence to the rejection but in an effort to expedite prosecution, Applicants have amended claim 1 to include the subject matter of originally filed claims 23 and 34. Claim 1

now relates to a process for the preservation of sugar cane including the steps of crushing the sugar cane to separate a juice portion and a pulp portion, thermally dewatering the pulp portion to form a dewatered pulp, concentrating the juice portion to form a syrup, and combining the dewatered pulp and the syrup to form a preserved sugar cane, wherein the preserved sugar cane is formed into blocks of mixed syrup and dried pulp under pressure whereby the potential for rehydration is reduced.

Noznick describes a “process of treating raw onions which comprises washing the same, rinsing with water, grinding and forming a puree ..., heating the mixture ..., cooling and spray drying.” See col. 2, lines 52-57 of Noznick. Noznick does not teach a process for the preservation of sugar cane including the steps of crushing the sugar cane to separate a juice portion and a pulp portion, thermally dewatering the pulp portion to form a dewatered pulp, concentrating the juice portion to form a syrup, and combining the dewatered pulp and the syrup to form a preserved sugar cane, wherein the preserved sugar cane is formed into blocks of mixed syrup and dried pulp under pressure whereby the potential for rehydration is reduced.

As such, claim 1 and dependent claim 19 are not anticipated by Noznick. Applicants respectfully request reconsideration and the withdrawal of this rejection.

Rejection of claims under 35 U.S.C. § 103

The Examiner has rejected claims 1-19 and 21 under 35 U.S.C § 103(a) as being unpatentable over U.S. Patent No. 2,650,881 to Forkner et al. (“Forkner”) and U.S. Patent No. 1,789,444 to Mathewson (“Mathewson”). See Office Action at p. 3. Claims 2-19 and 21 depend from independent claim 1.

Forkner describes a process for making “a suitable citrus fruit paste such as one made as shown in the flow sheet of Figure 2.” See col. 5, lines 29-32 of Forkner. Forkner does not teach or suggest a process for the preservation of sugar cane including the steps of crushing the sugar cane to separate a juice portion and a pulp portion, thermally dewatering the pulp portion to form a dewatered pulp, concentrating the juice portion to form a syrup, and combining the dewatered pulp and the syrup to form a preserved sugar cane, wherein the preserved sugar cane is formed into blocks of mixed syrup and dried pulp under pressure whereby the potential for rehydration is reduced.

This defect is not remedied by Mathewson. Mathewson describes "improvements in citrus fruit crushing mills and has for one of its principal objects the provision of a machine which will extract the juice and pulp from citrus fruit without breaking the oil cells in the peel." See lines 1-6 of Mathewson. Mathewson does not teach or suggest a process for the preservation of sugar cane including the steps of crushing the sugar cane to separate a juice portion and a pulp portion, thermally dewatering the pulp portion to form a dewatered pulp, concentrating the juice portion to form a syrup, and combining the dewatered pulp and the syrup to form a preserved sugar cane, wherein the preserved sugar cane is formed into blocks of mixed syrup and dried pulp under pressure whereby the potential for rehydration is reduced.

The references, alone and in combination, fail to teach or suggest a process for the preservation of sugar cane including the steps of crushing the sugar cane to separate a juice portion and a pulp portion, thermally dewatering the pulp portion to form a dewatered pulp, concentrating the juice portion to form a syrup, and combining the dewatered pulp and the syrup to form a preserved sugar cane, wherein the preserved sugar cane is formed into blocks of mixed syrup and dried pulp under pressure whereby the potential for rehydration is reduced.

Accordingly, claim 1, and claims that depend therefrom are patentable over the combination of Forkner and Mathewson for at least the reasons discussed above. Applicants request that this rejection be reconsidered and withdrawn.

Noznick and Mathewson

The Examiner has rejected claims 2-18 and 21 under 35 U.S.C. § 103(a) as being unpatentable over Noznick and Mathewson. See Office Action at p. 5. Claims 2-18 and 21 depend from independent claim 1.

As previously discussed, Noznick does not teach a process for the preservation of sugar cane including the steps of crushing the sugar cane to separate a juice portion and a pulp portion, thermally dewatering the pulp portion to form a dewatered pulp, concentrating the juice portion to form a syrup, and combining the dewatered pulp and the syrup to form a preserved sugar cane, wherein the preserved sugar cane is formed into blocks of mixed syrup and dried pulp under pressure whereby the potential for rehydration is reduced. Noznick further does not suggest a process for the preservation of sugar cane including the steps of crushing the sugar cane to

separate a juice portion and a pulp portion, thermally dewatering the pulp portion to form a dewatered pulp, concentrating the juice portion to form a syrup, and combining the dewatered pulp and the syrup to form a preserved sugar cane, wherein the preserved sugar cane is formed into blocks of mixed syrup and dried pulp under pressure whereby the potential for rehydration is reduced.

The references, alone and in combination, fail to teach or suggest a process for the preservation of sugar cane including the steps of crushing the sugar cane to separate a juice portion and a pulp portion, thermally dewatering the pulp portion to form a dewatered pulp, concentrating the juice portion to form a syrup, and combining the dewatered pulp and the syrup to form a preserved sugar cane, wherein the preserved sugar cane is formed into blocks of mixed syrup and dried pulp under pressure whereby the potential for rehydration is reduced.

This defect is not remedied in Mathewson either. As previously discussed, Mathewson does not teach or suggest a process for the preservation of sugar cane including the steps of crushing the sugar cane to separate a juice portion and a pulp portion, thermally dewatering the pulp portion to form a dewatered pulp, concentrating the juice portion to form a syrup, and combining the dewatered pulp and the syrup to form a preserved sugar cane, wherein the preserved sugar cane is formed into blocks of mixed syrup and dried pulp under pressure whereby the potential for rehydration is reduced.

Accordingly, claim 1, and claims that depend therefrom are patentable over the combination of Noznick and Mathewson for at least the reasons discussed above. Applicants request that this rejection be reconsidered and withdrawn.

Forkner or Noznick with Mathewson and DE 2049826

The Examiner has rejected claim 20 under 35 U.S.C. § 103(a) as being unpatentable over either Forkner or Noznick, further taken together with Mathewson and DE 2049826. See Office Action at p. 6. Claim 20 depends from independent claim 1.

As previously discussed, Forkner, Noznick and Mathewson do not teach or suggest a process for the preservation of sugar cane including the steps of crushing the sugar cane to separate a juice portion and a pulp portion, thermally dewatering the pulp portion to form a dewatered pulp, concentrating the juice portion to form a syrup, and combining the dewatered

pulp and the syrup to form a preserved sugar cane, wherein the preserved sugar cane is formed into blocks of mixed syrup and dried pulp under pressure whereby the potential for rehydration is reduced. Such a defect is not remedied in DE 2049826. DE 2049826 describes a “[m]ethod of concentrating thin juice in the sugar industry, using multistage evaporation” See Abstract. DE 2049826 does not teach or suggest a process for the preservation of sugar cane including the steps of crushing the sugar cane to separate a juice portion and a pulp portion, thermally dewatering the pulp portion to form a dewatered pulp, concentrating the juice portion to form a syrup, and combining the dewatered pulp and the syrup to form a preserved sugar cane, wherein the preserved sugar cane is formed into blocks of mixed syrup and dried pulp under pressure whereby the potential for rehydration is reduced.

Accordingly, since claim 20 depends from independent claim 1, claim 20 is patentable over the combination of Forkner, Noznick, Mathewson and DE 2049826 for at least the reasons discussed above. Applicants request that this rejection be reconsidered and withdrawn.

Forkner with Lippe or Lee

The Examiner has rejected claims 22-37 under 35 U.S.C. § 103(a) as being unpatentable over Forkner in view of U.S. Patent No. 3,215,559 to Lippe et al. (“Lippe”) or U.S. Patent No. 2,374,219 to Lee (“Lee”). See Office Action at p. 7. Not in acquiescence to the rejection but in an effort to expedite prosecution, claims 22, 23 and 34 have been cancelled thus rendering this rejection moot with respect to those claims. Claims 24-33 and 35-37 depend from independent claim 1.

As previously discussed, Forkner does not teach or suggest a process for the preservation of sugar cane including the steps of crushing the sugar cane to separate a juice portion and a pulp portion, thermally dewatering the pulp portion to form a dewatered pulp, concentrating the juice portion to form a syrup, and combining the dewatered pulp and the syrup to form a preserved sugar cane, wherein the preserved sugar cane is formed into blocks of mixed syrup and dried pulp under pressure whereby the potential for rehydration is reduced. This is further acknowledged by the Examiner who has stated on p. 8 of the Office Action that “[t]he claims also call for the syrup and pulp to be combined into a block form under pressure” and “Forkner et al is silent regarding producing the combination in such manner”

Such a defect is not remedied in Lippe or Lee references. The Examiner however, has contended that "it would have been further obvious to have prepared the combination in any form including a block form using pressure molding" See Office Action at p. 8. Lippe describes "a method of producing sugar from sugar-bearing plants and fruits which consists in rupturing or exploding the walls of the cells of these plants or fruits containing the sugar-bearing juice without heating the raw material" See col. 1, lines 11-27 of Lippe. Lippe further describes separating the sugar juice or sugar solution from the pulp. See col. 1, lines 53-63 of Lippe. Lippe does not teach or suggest a process for the preservation of sugar cane including the steps of crushing the sugar cane to separate a juice portion and a pulp portion, thermally dewatering the pulp portion to form a dewatered pulp, concentrating the juice portion to form a syrup, and combining the dewatered pulp and the syrup to form a preserved sugar cane, wherein the preserved sugar cane is formed into blocks of mixed syrup and dried pulp under pressure whereby the potential for rehydration is reduced. Further, amended claim 1 relates to a process for the preservation of sugar cane and not the obtaining of sugar. A person of skill in the art would immediately understand that sugar cane is a very different plant material with significantly different properties to other plant materials (such as fruit). Therefore, a person of skill in the art would not consider that a process for obtaining sugar from fruit as described in Lippe as being in any way analogous or relevant to a process for preservation of sugar cane. As such, there is no motivation to modify the process described in Lippe to arrive at a process for the preservation of sugar cane.

Lee describes "a method of concentrating and sterilizing food juices and the like without materially altering their natural characteristics, such as flavor, nutrient value and vitamin content." See col. 1, lines 5-9 of Lee. Lee further describes separating the pulp from the juice. See col. 1, lines 47-50 of Lee. Lee does not teach or suggest a process for the preservation of sugar cane including the steps of crushing the sugar cane to separate a juice portion and a pulp portion, thermally dewatering the pulp portion to form a dewatered pulp, concentrating the juice portion to form a syrup, and combining the dewatered pulp and the syrup to form a preserved sugar cane, wherein the preserved sugar cane is formed into blocks of mixed syrup and dried pulp under pressure whereby the potential for rehydration is reduced.

There is no motivation or suggestion within the references to combine Forkner with Lippe and Lee. As described above, the purpose of the processes disclosed in Lippe and Lee is to separate the pulp and syrup fractions. Based on the teachings of Lippe and Lee, a person of skill in the art would not be motivated to recombine the pulp and syrup fractions of the plant material once pulp and syrup fractions are separated. There is also no direction or suggestion in Forkner, Lippe and Lee to recombine the pulp and syrup fractions of the plant material. The references do not teach or suggest that the recombination of the pulp and syrup fractions of the sugar cane as described in claim 1 leads to a reduction in the potential for rehydration. This provides a significant benefit for the product as it means that the shelf life of the product may be extended without any corresponding reduction in product quality. See p. 3 of the specification.

Accordingly, since claims 24-33 and 35-37 depend from independent claim 1, claims 24-33 and 35-37 are patentable over the combination of Forkner, Lippe and Lee for at least the reasons discussed above. Applicants request that this rejection be reconsidered and withdrawn.

Noznick and Chandrasekaran or Lee

The Examiner has rejected claims 22-37 under 35 U.S.C. § 103(a) as being unpatentable over Noznick in view of U.S. Patent No. 3,716,382 to Chandrasekaran et al. ("Chandrasekaran") or Lee. See Office Action at p. 9. Not in acquiescence to the rejection but in an effort to expedite prosecution, claims 22, 23 and 34 have been cancelled thus rendering this rejection moot with respect to those claims. Claims 24-33 and 35-37 depend from independent claim 1.

As previously discussed, Noznick and Lee do not teach or suggest a process for the preservation of sugar cane including the steps of crushing the sugar cane to separate a juice portion and a pulp portion, thermally dewatering the pulp portion to form a dewatered pulp, concentrating the juice portion to form a syrup, and combining the dewatered pulp and the syrup to form a preserved sugar cane, wherein the preserved sugar cane is formed into blocks of mixed syrup and dried pulp under pressure whereby the potential for rehydration is reduced.

This defect is not remedied in Chandrasekaran. Chandrasekaran describes dehydrating liquid foods "by subjecting them to a vacuum and to a temperature only low enough to freeze part of the water content to produce a slush." See col. 1, lines 13-16 of Chandrasekaran. Chandrasekaran does not teach or suggest a process for the preservation of sugar cane including

the steps of crushing the sugar cane to separate a juice portion and a pulp portion, thermally dewatering the pulp portion to form a dewatered pulp, concentrating the juice portion to form a syrup, and combining the dewatered pulp and the syrup to form a preserved sugar cane, wherein the preserved sugar cane is formed into blocks of mixed syrup and dried pulp under pressure whereby the potential for rehydration is reduced.

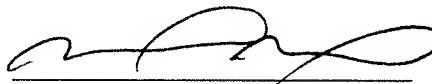
Accordingly, since claims 24-33 and 35-37 depend from independent claim 1, claims 24-33 and 35-37 are patentable over the combination of Noznick, Lee and Chandrasekaran for at least the reasons discussed above. Applicants request that this rejection be reconsidered and withdrawn.

CONCLUSION

For the foregoing reasons, Applicant respectfully requests reconsideration and withdrawal of the pending rejections. A petition for a three month extension of time is attached. Applicant believes that the claims now pending are in condition for allowance. Should any further fees be required by the present Reply, the Commissioner is hereby authorized to charge Deposit Account **19-4293**.

Respectfully submitted,

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